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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,960	07/13/2001	James T. Kellis	CLMCR.005A	4116

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EXAMINER

NGUYEN, FRANCIS N

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/904,960

Applicant(s)

KELLIS, JAMES T.

Examiner

FRANCIS NGUYEN

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-11 and 15-19 is/are allowed.
- 6) ☐ Claim(s) 1 and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1, 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Weindorf (US Patent 6,396,217).

As to claim 1, Weindorf discloses an electronic brightness control circuit ( brightness offset error reduction system, column 2, line 66 through column 3, line 9, figure 3, control circuitry 108, column 4, lines 4-5) for a display ( display panel 104, column 4, lines 26-29) wherein the display brightness changes uniformly ( column 8, lines 26-34) to the cognizance as the user adjusts the display brightness ( user adjusts or manually set brightness through user interface, column 1, lines 56-58) .

As to claim 12, Weindorf discloses a brightness control device circuit ( brightness offset error reduction system, column 2, line 66 through column 3, line 9, figure 3, control circuitry 108, column 4, lines 4-5) for a display screen display ( display panel 104, column 4, lines 26-29) wherein, in response to a brightness control signal ( user adjusts or manually set brightness through user interface, column 1, lines 56-58) , the

Art Unit: 2674

brightness control device produces a display control signal ( output voltage to control brightness of panel 104, column 5, lines which compensates for a difference between a perceived display screen brightness and an actual display screen brightness ( more brightness control resolution provides brightness step changes perceived as uniform by the user, column 8, lines 26-34) .

As to claim 13, a brightness control device as defined in claim 12, wherein the brightness control device is implemented using discrete components ( switch, resistors, column 7, lines 42-46).

As to claim 14, a brightness control device as defined in claim 12, wherein the brightness control device is implemented using monolithic integration ( column 4, lines 57-58).

***Allowable Subject Matter***

3. Claims 2-11, 15-19 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 2-4, none of prior art teaches an apparatus which provides a uniformly varying brightness control for a display screen, comprising: an exponential brightness control circuit responsive to a digital input for providing an output current to the display screen, so as to control brightness of said display screen, wherein the output current is exponentially related to the digital input

As to claims 5-8, none of prior art teaches an apparatus which provides a uniformly-varying brightness control for a display screen, comprising an attenuator , a voltage-to-current converting amplifier, a current mirror circuit connected to an LED array so as to provide current to the Led array that is exponentially related to the digital input .

Art Unit: 2674

As to claims 9-10, none of prior art teaches a method of providing a uniformly-varying brightness control for a display screen, the method comprising: applying a reference voltage, attenuating the reference voltage, converting the attenuated voltage to a converted current, providing an output current for controlling brightness, said output current being related to the converted current and exponentially related to the digital input.

As to claim 11, none of prior art teaches a control apparatus comprising means for controlling brightness of a display screen device wherein the controlling means provides current to said display screen device, said current having a magnitude that is substantially exponentially related to digital input to said display screen device

As to claims 15-19, none of prior art teaches an apparatus which provides a uniformly-varying brightness control for a display screen, comprising: means for applying a reference voltage to a circuit, means for applying a digital input to a circuit, means for attenuating the reference voltage based on the digital input, means for converting the attenuating voltage to current, and means for providing at least one output current for controlling brightness of the display screen, in response to the digital input, wherein the at least one output current is exponentially to the digital input.

### CONCLUSION

5. The prior art made of record but not relied upon is pertinent to Applicant's disclosure

US Patent	5,734,362	Eglit
US Patent	6,337,675	Toffolo et al.
US Patent	6,275,207	Nitta et al.

US Patent 5,774,112 Kasson

US Patent 5,786,801 Ichise

Reference Eglit is made of record as it discloses a brightness control for liquid crystal displays.

Reference Toffolo et al. is made of record as it discloses a display system with automatic and manual brightness control.

Reference Nitta et al. is made of record as it discloses a liquid crystal driving circuit with adjustable display brightness.

Reference Kasson is made of record as it discloses an apparatus for tone correction of a digital image.

Reference Ichise is made of record as it discloses a backlight control apparatus comprising a brightness controller.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **FRANCIS N NGUYEN** whose telephone number is **703 308-8858**. The examiner can normally be reached during hours 8:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached at 703 305-4579.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

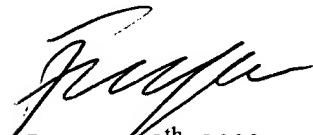
**or faxed to:**

Art Unit: 2674

**(703) 872-9314 ( for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor ( Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service whose telephone number is  
(703) 306-0377.



January 29<sup>th</sup>, 2003

FRANCIS N NGUYEN  
Examiner  
Art Unit 2674